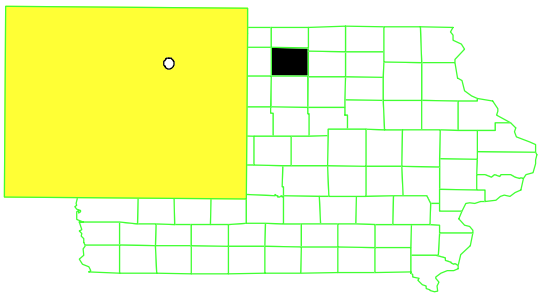
NORTHWESTERN STATES PORTLAND CEMENT CO.

IOWA
EPA ID# IAD980852461

EPA Region 7
City: Mason City
County: Cerro Gordo County
Other Names:



SITE DESCRIPTION

The Northwestern States Portland Cement Co. (NWSPCC) site covers 150 acres of a 250-acre parcel of land in Mason City. The NWSPCC began limestone mining operations in 1908. The company ceased the mining in the West Quarry in 1950 and abandoned the quarry west of the plant. In 1969, the NWSPCC began using the quarry for the disposal of waste kiln dust containing hydroxides, potassium, chromium, and sulfates. An estimated 2 million tons of waste kiln dust were disposed of in the quarry. Over the years, the water level rose approximately 2 feet per year, filling in the quarry so that it held approximately 420 million gallons of water. Rainwater runoff drains from the quarry into adjacent Calmus Creek, a tributary of the Winnebago River. The Iowa Department of Natural Resources (IDNR) conducted an investigation in 1984, when a citizen became concerned over the Winnebago River turning white. Calmus Creek was found to have a higher than normal pH level. The Mason City municipal wells are located within 3 miles of the site and serve approximately 30,000 people. An estimated 300 people obtain their drinking water from private wells located within 1½ miles of the site. The municipal wells are connected to the deep Jordan aquifer. The private wells are served by the Cedar Valley aquifer. Calmus Creek and the Winnebago River are used for recreational activities, including fishing.

Site Responsibility:

This site was addressed through Federal, State, and potentially responsible parties' actions.

NPL LISTING HISTORY	
Proposed Date:	06/24/88
Final Date:	08/30/90
Deleted Date:	08/31/95

THREATS AND CONTAMINANTS

Description: The groundwater was contaminated with sulfates, sodium, and elevated pH from the former process waste disposal practices at the site. Although the groundwater was contaminated, municipal and private drinking water wells were not polluted. If the contaminant plume had migrated from Calmus Creek and into the Cedar Valley aquifer, the private wells could have become contaminated and posed a health hazard to people who used them. Sediments and soils were contaminated with higher than normal pH. Calmus Creek was contaminated with higher than normal pH, and people who used the creek for recreation or ate fish from it may have been at risk. The increased pH found in soil, sediments, and surface water of the quarry was considered caustic; therefore, coming into direct contact with these substances posed a health risk.

CLEANUP APPROACH

Response Action Status

Initial Actions: The State ordered the NWSPCC to stop discharges into Calmus Creek, and the company complied by installing a system that intercepts the flow and pumps the water back into the quarry. In 1987, the company began treating the surface water before discharging it into the creek.

Entire Site: The NWSPCC has pumped most of the water from the quarry. The NWSPCC also conducted an investigation, under State supervision, to determine the extent of contamination at the site. The investigation was completed in 1990. Based on the results of the investigation, EPA selected a final cleanup remedy. Along with pumping the water from the quarry, the remedy included construction of a permanent drain system in the quarry to collect precipitation runoff and groundwater inflow; installation of a cap over the quarry area filled with waste kiln dust to minimize infiltration through to kiln dust; installation of bedrock dewatering wells to collect contaminated groundwater, thereby preventing the migration of contaminated groundwater and maintaining groundwater levels; installation of kiln dust dewatering wells, if necessary; treatment of contaminated waters and final discharge into Calmus Creek; and continued operation of a dewatering system. The design of these remedies by the NWSPCC began in 1991 and was completed in late 1992. Construction of site remedies was completed in 1993, and the site was deleted from the NPL in August 1995. Annual groundwater monitoring and cap maintenance is currently ongoing.

Description:

Site Facts: In 1985, the State issued an Administrative Order to the NWSPCC to stop discharges into Calmus Creek. In addition, the Order instructed the company to conduct a study, under State supervision, to determine the effect of the quarry on

the environment. This study was completed in 1987. In 1989, the State issued an Administrative Order to the NWSPCC to conduct an additional site study, which was completed in 1990.

ENVIRONMENTAL PROGRESS

Pumping the water from the quarry and treating surface water and groundwater prior to release to Calmus Creek has eliminated the potential for exposure to contaminated water and sediments at the Northwestern States Portland Cement Co. site. The site was deleted from the NPL in August 1995. EPA conducted a Five-Year Review for this site in June of 1997. The conclusion of the Five-Year Review is that the remedy remains protective of human health and the environment.

SITE REPOSITORY

Mason City Public Library, 225 Second Street, Mason City, IA 50401

Superfund Records Center
901 N. 5th St.
Kansas City, KS 66101
Mail Stop SUPR
(913)551-4038

REGIONAL CONTACTS

SITE MANAGER:	Nancy Swyers
E-MAIL ADDRESS:	
	(913) 551-7703
COMMUNITY INVOLVEMENT COORDINATOR:	Diane Huffman
PHONE NUMBER:	(913) 551-7544
PUBLIC INFORMATION CENTER:	
E-MAIL ADDRESS:	
STATE CONTACT:	Robert Drustrup
PHONE NUMBER:	(515) 281-8900

MISCELLANEOUS INFORMATION

STATE:	
PACIFIC ISLAND(S):	
	07CN
CONGRESSIONAL DISTRICT:	
	02
EPA ORGANIZATION:	SFD-IANE/SUPR

MODIFICATIONS